



DEPARTMENT OF PERMITTING, ENVIRONMENT, AND REGULATORY
AFFAIRS (PERA)
BOARD AND CODE ADMINISTRATION DIVISION
NOTICE OF ACCEPTANCE (NOA)

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175-2474
T (786) 315-2590 F (786) 315-2599
www.miamidade.gov/pera

Firestone Building Products Company, LLC
250 West 96th Street
Indianapolis, IN 46260

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County PERA – Product Control Section to be used in Miami-Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami-Dade County) and/or the AHJ (in areas other than Miami-Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Firestone UltraPly TPO Single Ply Roof Systems over Wood Decks.

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/ or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA No. 12-0131.01 and consists of pages 1 through 8.
The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 12-0307.02
Expiration Date: 04/19/17
Approval Date: 07/26/12
Page 1 of 8

ROOFING SYSTEM APPROVAL

<u>Category:</u>	Roofing
<u>Sub-Category:</u>	Single Ply Roofing
<u>Material:</u>	TPO
<u>Deck Type:</u>	Wood
<u>Maximum Design Pressure</u>	-82.5 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specifications</u>	<u>Product Description</u>
UltraPly TPO	Various	TAS 131 ASTM D 6878	Reinforced TPO 0.045" to 0.080" thick membrane
TPO QuickSeam Flashing	5-3/4" x 100'	Proprietary	Flashing material with pre-applied adhesive
Single-Ply QuickPrimer Primer	1 gallon	Proprietary	Primer for TPO QuickSeam Flashing
EdgeGard System	Various	Various	Flashing materials and assemblies

APPROVED INSULATIONS:

TABLE 2

Product Name	Product Description	Manufacturer (With Current NOA)
ISO 95+ GL	Polyisocyanurate foam insulation	Firestone Building Products Co.
DensDeck, DensDeck Prime	Fire resistant rated gypsum	Firestone Building Products Co.
FiberTop E	Woodfiber insulation board	Firestone Building Products Co.
High Density Wood Fiberboard	Non-Asphaltic fiberboard Insulation	Generic
Georgia-Pacific High Density Roof Fiberboard	Non-Asphaltic fiberboard Insulation	Georgia-Pacific

APPROVED FASTENERS:

TABLE 3

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
1.	Firestone Heavy Duty Fastener	#15 Fastener for steel, Wood, concrete decks	N/A	Firestone Building Products Co.
2.	Firestone All Purpose Fastener	#14 Fastener for steel, Wood, concrete decks	N/A	Firestone Building Products Co.
3.	Firestone 2-3/8" Barbed Seam Plate	Membrane seam attachment plate	2-3/8" diameter	Firestone Building Products Co.



NOA No.: 12-0307.02
 Expiration Date: 04/19/17
 Approval Date: 07/26/12
 Page 2 of 8

APPROVED FASTENERS:**TABLE 3**

Fastener Number	Product Name	Product Description	Dimensions	Manufacturer (With Current NOA)
4.	Firestone HD Seam Plate	Metal Seam Plate with Eyehooks	2-3/8" diameter	Firestone Building Products Co.
5.	Firestone Pre-Assembled fastener & plate	#14 w/insulation plate for steel, Wood, concrete decks	N/A	Firestone Building Products Co.
6.	Pre-Assembled Heavy Duty fastener & plate	#15 w/insulation plate for steel, Wood, concrete decks	N/A	Firestone Building Products Co.
7.	Firestone Heavy Duty Plus Fastener	Insulation and membrane fastener	Various	Firestone Building Products Co.
8.	UltraPly TPO InvisiWeld Plates	High-performance TPO membrane fastening system	3" diameter	Firestone Building Products Co.

EVIDENCE SUBMITTED:

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Description</u>	<u>Date</u>
Underwriters Laboratories Inc.	01NK17982	UL790	06/05/01
	00NK43467	UL790	01/22/01
	99NK5401	UL790	08/17/99
	99NK3276	UL790	03/30/99
	98NK39140	UL790	05/13/99
	03NK34486	UL790	03/22/05
	10NK13003	UL1897/TAS 114-J	07/17/12
Factory Mutual Research Corporation	3006983	4470	02/08/00
	3004249	4470	11/03/99
	3003830	4470	05/26/99
	3001925	4470	05/24/99
	3014031	4470	07/22/02
	3014918	4470	12/17/03
	3012931	4470	04/04/04
	3016670	4470	04/29/04
	3017120	4470	04/30/04
	3020394	4470	09/03/04
	3022988	4470	01/28/05
	3019991	4470	09/20/05
Atlantic & Caribbean Roof Consulting, LLC	ACRC 06-030	TAS 114-J	08/21/06
Trinity ERD	F8960.04.08-R1	TAS 114-F	06/23/08
	F8300.03.09-R1	TAS 131/ASTM D6878	03/03/09
	F8300.11.08-R3	TAS 131/ASTM D6878	02/25/11

APPROVED ASSEMBLIES:

Membrane Type: Single Ply, TPO

Deck Type II: Wood, Insulated

Deck Description: 19/32" or greater plywood attached to min. 2" x 4" supports spaced max. 24" with 10d nails spaced 4" o.c. at the perimeter of plywood and 8d nails spaced 6" o.c. at the field of plywood.

System Type D: Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply.

Base Insulation Layer	Insulation Fasteners (Table 3)	Fastener Density/ft ²
ISO 95+GL Minimum 1.5" thick	N/A	N/A
Top Insulation Layer (Optional)	Insulation Fasteners (Table 3)	Fastener Density/ft ²
DensDeck, DensDeck Prime Minimum 0.25" thick	N/A	N/A
FiberTop E, Approved High Density Wood Fiber, Georgia-Pacific High Density Roof Fiberboard Minimum 0.5" thick	N/A	N/A

Note: All insulation shall have preliminary attachment, prior to the installation of the roofing membrane at a minimum application rate of five (5) HD screws and 3" diameter HD insulation plates per 4' X 8' insulation board. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Fire Barrier: None.

Membrane: Firestone UltraPly TPO (45-80 mils) reinforced membrane attached to deck through the preliminary attached insulation as described below.

Membrane is mechanically attached using Firestone Heavy Duty Fasteners and Firestone HD Seam Plates 2-3/8" diameter spaced 6" o.c. within minimum 5.5" wide laps. Laps are spaced maximum 90" o.c. and sealed with minimum 5" heat weld.

Maximum Design Pressure: -60 psf (See General Limitation #7)



NOA No.: 12-0307.02
Expiration Date: 04/19/17
Approval Date: 07/26/12
Page 4 of 8

Membrane Type: Single Ply, TPO

Deck Type 1: Wood, Non-Insulated

Deck Description: 5/8" Type B-C APA Rated plywood attached to wood joist having a maximum spacing of 24" with 8d nails 2.5 in. long spaced max. 6" o.c.

System Type E(1): Membrane mechanically attached.

All General and System Limitations apply.

(Optional) Slip Sheet: Miami-Dade Approved ASTM D226 Type II or ASTM D 4869 Type IV sheets.

Membrane: Firestone UltraPly TPO (45-80 mils) reinforced membrane attached to deck as described below.
Firestone UltraPly TPO InvisiWeld Plates are placed over substrate and fastened using Firestone Heavy Duty Fasteners spaced 6" o.c. in rows of fasteners spaced 72" o.c. Membrane is installed over the Firestone UltraPly TPO InvisiWeld Plates and bonded to the plates using a RhinoBond Portable Bonding Tool. Laps are sealed with a minimum 1.5" heat weld at the overlap seam.

Maximum Design Pressure: -45 psf (See General Limitation #7)



Membrane Type: Single Ply, TPO
Deck Type 1: Wood, Non-Insulated
Deck Description: 5/8" Type B-C APA Rated plywood attached to wood joist having a maximum spacing of 24" with 8d nails 2.5 in. long spaced max. 6" o.c.
System Type E(2): Membrane mechanically attached.

All General and System Limitations apply.

(Optional) Slip Sheet: Miami-Dade Approved ASTM D226 Type II or ASTM D4869 Type IV sheets.

Membrane: Firestone UltraPly TPO (45-80 mils) reinforced membrane attached to deck as described below.

Membrane is mechanically attached using Firestone Heavy Duty Fasteners and Firestone HD Seam Plate 2-3/8" diameter spaced 6" o.c. within minimum 6" wide laps. Laps are spaced maximum 72" o.c. and sealed with minimum 1.5" heat weld. .

Maximum Design Pressure: -52.5 psf (See General Limitation #7)



Membrane Type: Single Ply, TPO
Deck Type 1: Wood, Non-Insulated
Deck Description: 5/8" Type B-C APA Rated plywood attached to wood joist having a maximum spacing of 24" with No. 8 deck screws 2.5 in. long spaced max. 6" o.c.
System Type E(3): Membrane mechanically attached.

All General and System Limitations apply.

(Optional) Slip Sheet: Miami-Dade Approved ASTM D226 Type II or ASTM D4869 Type IV sheets.

Membrane: Firestone UltraPly TPO (45-80 mils) reinforced membrane attached to deck as described below.
Firestone UltraPly TPO InvisiWeld Plates are placed over substrate and fastened using Firestone Heavy Duty Fasteners spaced 6" o.c. in rows of fasteners spaced 60" o.c. Membrane is installed over the Firestone UltraPly TPO InvisiWeld Plates and bonded to the plates using a RhinoBond Portable Bonding Tool. Laps are sealed with a minimum 1.5" heat weld at the overlap seam.

Maximum Design Pressure: -82.5 psf (See General Limitation #7)



GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer.
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.

Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.

5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. Insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 9N-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE



NOA No.: 12-0307.02
Expiration Date: 04/19/17
Approval Date: 07/26/12
Page 8 of 8